

CLAIMS

1. A method of cutting a multilayer structure composed of a plurality of resin layers so as to provide a predetermined shape, comprising the steps of: compressing and deforming a multilayer structure, while extending respective layers of the multilayer structure to provide a thin thickness portion, so that an upper layer bites into a lower layer by pushing a push cutter, by a predetermined amount, into the multilayer structure supported by a cutter receiving portion, in a fused state of at least one of the resin layers forming the multilayer structure; and push-cutting the compressed thin thickness portion till the push cutter abuts against the cutter receiving portion so as to converge an intermediate layer and surface resin layers of the multilayer structure to the abutting portion of the push cutter and the cutter receiving portion.

2. The method of cutting a multilayer structure according to claim 1, wherein the push-cutting step is performed after the resin material constituting the multilayer structure is cooled and hardened below a melting point thereof.

3. The method of cutting a multilayer structure according to claim 1, wherein the push-cutting step is performed in the fused state of the resin material constituting the multilayer structure.

4. The method of cutting a multilayer structure according to claim 1, wherein the push cutter has a normal temperature.

5. The method of cutting a multilayer structure according to claim 1, wherein the push cutter is a belt-shaped cutter having both ends connected together endlessly.

6. The method of cutting a multilayer structure according to claim 4 or 5, wherein the push cutter has an angled edge shape having at least one side surface inclined.

7. The method of cutting a multilayer structure according to any one of claims 1 to 6, wherein the multilayer structure is in form of sheet.

8. The method of cutting a multilayer structure according to any one of claims 1 to 6, wherein the multilayer structure is a cup or tray.

9. The method of cutting a multilayer structure according to any one of claims 1 to 6, wherein the multilayer structure is a pouch.

10. The method of cutting a multilayer structure according to any one of claims 1 to 9, wherein the intermediate layer includes at least a gas shut-off layer.

11. The method of cutting a multilayer structure according to any one of claims 1 to 9, wherein the intermediate layer includes at least an oxygen absorbing layer including an iron series deoxidizing agent.

12. The method of cutting a multilayer structure according to any one of claims 1 to 9, wherein the intermediate layer includes two-layer structure composed of an oxygen absorbing layer and a gas shut-off layer.

13. A method of forming a multilayer container in which a container body is formed by means of molding from a multilayer structure including a plurality of laminated resin layers at least one of which is in a fused state, and simultaneously, a peripheral edge portion of the container body of the multilayer structure is cut with a predetermined width so as to form a flange portion, wherein the cutting of the peripheral edge portion of the container body of the multilayer structure comprises the steps of: compressing and deforming a multilayer structure, while extending respective layers of the multilayer structure to provide a thin thickness portion, so that an upper layer bites into a lower layer by pushing a push cutter, by a predetermined amount, into the multilayer structure supported by a cutter receiving portion, in a fused state of at least one of the resin layers forming the multilayer structure; and push-cutting the compressed thin thickness portion till the push cutter abuts against the cutter receiving portion so as to converge an

intermediate layer and surface resin layers of the multilayer structure to the abutting portion of the push cutter and the cutter receiving portion.

14. The method of forming a multilayer container according to claim 13, wherein a pair of mold halves clamping the multilayer structure are disposed, a push cutter is provided for one of the mold halves and a cutter receiving portion is provided for another one of the mold halves.

15. The method of forming a multilayer container according to claim 13, wherein the push-cutting of the flange portion is performed after the forming of the container body.

16. The method of forming a multilayer container according to claim 13, wherein the push-cutting of the flange portion is performed in the fused state of the multilayer structure before the forming of the container body.

17. The method of forming a multilayer container according to any one of claims 13 to 16, wherein the intermediate layer includes at least a gas shut-off layer.

18. The method of forming a multilayer container according to any one of claims 13 to 16, wherein the intermediate layer includes at least an oxygen absorbing layer including an iron series deoxidizing agent.

19. The method of forming a multilayer container according to any one of claims 13 to 16, wherein the intermediate layer includes two-layer structure composed of an oxygen absorbing layer and a gas shut-off layer.

20. A multilayer product formed by push-cutting a multilayer structure formed of a plurality of laminated resin layers between a cutter receiving portion and a push cutter so as to provide a predetermined shape, wherein a push-cut point between the cutter receiving portion and the push cutter is positioned on a side surface of the multilayer structure opposite to the push cutter, and an intermediate layer and surface resin layers are converged to the push-cut point.

21. The multilayer product according to claim 20, wherein the respective layers constituting the multilayer structure are parallel to each other, end portions of the respective layers are converged towards the push-cut point, and a portion continuing from the parallel portion to the converged portion is creased as a protruded portion on the push cutter side.

22. The multilayer product according to claim 20, wherein the multilayer structure is a cup or tray.

23. The multilayer product according to claim 21 or 22, wherein the multilayer structure is a pouch.

24. The multilayer product according to any one of claims 21 to 23, wherein the intermediate layer includes at least a gas shut-off layer.

25. The multilayer product according to any one of claims 21 to 23, wherein the intermediate layer includes at least an oxygen absorbing layer including an iron series deoxidizing agent.

26. The multilayer product according to any one of claims 21 to 23, wherein the intermediate layer includes two-layer structure composed of an oxygen absorbing layer and a gas shut-off layer.